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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,922	02/11/2004	Yu-Sin Yang	2522-046	5474
20575	7590	03/23/2006	EXAMINER	
MARGER JOHNSON & MCCOLLOM, P.C. 210 SW MORRISON STREET, SUITE 400 PORTLAND, OR 97204			TON, TRI T	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/777,922

Applicant(s)

YANG ET AL.

Examiner

Tri T. Ton

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-5 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/11/04 & 5/10/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2877

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 02/11/04 has been entered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Oath/Declaration***

3. The Oath and Declaration filed on 02/11/2004 is acceptable.

### ***Drawings***

4. The drawings filed on 02/11/2004. These drawings are acceptable.

### ***Specification***

5. The disclosure is objected to because of the following informalities: in page 6, line 6 reference number 10 has been used to designate both semiconductor substrate 10 and scattered light 10. Appropriate correction is required.

**The examiner respectfully suggests revision as follow:**

Art Unit: 2877

Page 6, line 6 the word "scattered light 10" should be changed to scattered light 30.

### **Claim Objections**

6. Claims 1-5 and 13 are objected because of the following informalities: unclear and lack of antecedent basis. Examples of some unclear, inexact or verbose terms used in these claims are: "irradiating first light beams onto the substrate, the first light beams having different wavelengths" (claim 1, line 2-3), "irradiating a second light beam onto the substrate, the second light beam having a wavelength" (claim 1, line 9-10), "receiving an image representing the substrate from the third and fourth lights" (claim 4, line 2). Appropriate correction is required.

**The examiner respectfully suggests revision for claims 1-4 and 13 as follow:**

- a. Claim 1, line 2 the words "first light beams" should be changed to a plurality of light beams.
- b. Claim 1, line 9 the words "second light beam" should be changed to selected light beam.
- c. Claim 2, line 1 the word "first light beams" should be changed to a plurality of light beams.
- d. Claim 3, line 1 the word "first light beams" should be changed to a plurality of light beams.

Art Unit: 2877

e. Claim 4, line 2 the word "*the third and fourth lights*" should be changed to *the third and fourth scattered lights*.

f. Claim 13, line 7 the word "*first light beams*" should be changed to *first light beam*.

***Allowable Subject Matter***

7. **Claims 1-5 and 13 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.**

8. The following is a statement of reasons for the indication of allowable subject matter: there was no prior art found by the examiner that suggested modification or combination with the cited art so as to satisfy the combination of all the limitations in claims 1, 6, 13 and 14.

9. As to claim 1, the prior art of record, taken alone or in combination, fails to disclose or render limitations "*irradiating a **selected** light beam onto the substrate, the **selected** light beam having a wavelength corresponding to a maximum value of the differential values between the respective first and second intensities;*"

10. As to claim 6, the prior art of record, taken alone or in combination, fails to disclose or render limitations "*comparing the first intensity variation with the second intensity variation in order to produce differential light intensity values between first intensities and second intensities corresponding to the first and second intensity variations, respectively; irradiating a second light beam onto the*

Art Unit: 2877

substrate, the second light beam having a second wavelength corresponding to a maximum value of the differential light intensity values".

11. As to claim 13, the prior art of record, taken alone or in combination, fails to disclose or render limitations "repeatedly irradiating first light beam in which a first wavelength of the first light beam is sequentially varied by a predetermined amount; selecting a second wavelength corresponding to a maximum value of the differential values produced during the irradiating of the first light beam;"

12. As to claim 14, the prior art of record, taken alone or in combination, fails to disclose or render limitations "comparing first intensities of first lights scattered from a surface of the substrate with second intensities of second lights scattered from impurities on the substrate, for producing differential values of light intensity between the first intensities and the second intensities, respectively, and for selecting a wavelength corresponding to a maximum value of the differential values".

### **Conclusion**

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references of Peterson (US 5,179,422 A), Noguchi et al. (US 6,654,112 B2), Hayano (US 5,663,569 A), Emery et al. (US 5,563,702 A), Kinney et al. (US 5,909,276 A) and Guan et al. (US 2003/0086080 A1) teach of various features similar to the claimed invention.

14. This application is in condition for allowance except for the following formal matters:

**Claims 1-5 and 13 are objection.**

Art Unit: 2877

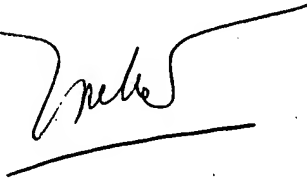
Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri T. Ton whose telephone number is (571) 272-9064. The examiner can normally be reached on 8:00am - 5:30pm.

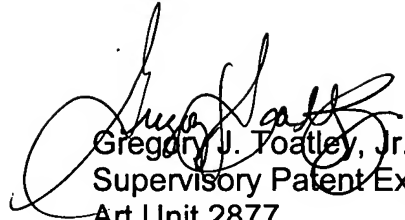
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2877



March 20, 2006  
Examiner Tri Ton/SN



Gregory J. Toatley, Jr.  
Supervisory Patent Examiner  
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